

L4 ANSWER 41 OF 52 CA COPYRIGHT 2006 ACS on STN
AN 106:181436 CA
ED Entered STN: 29 May 1987
TI Method of obtaining a ceramic material
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PA Akademia Gorniczo-Hutnicza, Pol.
SO Pol., 2 pp.
CODEN: POXXA7

DT Patent
LA Polish
IC C04B031-10; B01J002-28
CC 57-2 (Ceramics)

Section cross-reference(s): 58

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	PL 129013 ✓	B1	19840331	PL 1980-222548	19800307
PRAI	PL 1980-222548		19800307		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
PL 129013	IC	C04B031-10; B01J002-28
	IPCI	C04B0031-10; B01J0002-28

AB Ceramic materials are produced from **fly ash** and clays accompanying coal deposits. Clays are slurried with **water** and optional fluidity improver, the resulting suspension is stabilized by adding 0.1-8 weight%, organic **plasticizer(s)** and **fly ash** is added. The liquid phase/solid phase ratio in the suspension is <1:1. Then, the suspension is classified and spray dried. The resulting granules are pressed and used for manufacture of ceramics, building materials, and refractories. Thus, clay was slurried with warm **water** to obtain a .apprx.10 weight% suspension, and **water** glass fluidity improver and styrene-acrylic copolymer **plasticizer** were added. Then, **fly ash** was added to give a 60% suspension having a viscosity of 90 mPa-s. The suspension was passed through a sieve (0.5 mm mesh size), spray dried, and granulated. The bulk d. of the granules containing .apprx.5 weight% moisture was 9.8 + 10-4 kg/m3. Bending strength was 0.88 MPa after compacting at 20 MPa, 1.82 MPa after drying, and 38.8 MPa after **firing** at 1423 K. The absorption ability after **firing** was ≤2 weight%.

ST clay **fly ash** ceramic manuf
IT **Plasticizers**